

Name: \_\_\_\_\_

**at1110paper\_\_practice\_\_test (v48)**

1. Factor the expression.

$$x^2 - 3x - 10$$

$$(x - 5)(x + 2)$$

2. Solve the equation.

$$11x^2 + 64x + 24 = 4x^2 - 2x - 3$$

$$7x^2 + 66x + 27 = 0$$

$$(7x + 3)(x + 9) = 0$$

$$x = \frac{-3}{7} \quad x = -9$$

3. Expand the following expression into standard form.

$$(9x - 7)(9x + 7)$$

$$81x^2 + 63x - 63x - 49$$

$$81x^2 - 49$$

4. Factor the expression.

$$49x^2 - 25$$

$$(7x + 5)(7x - 5)$$

5. Expand the following expression into standard form.

$$(7x + 9)^2$$

$$49x^2 + 63x + 63x + 81$$

$$49x^2 + 126x + 81$$

6. Expand the following expression into standard form.

$$(6x + 7)(5x - 8)$$

$$30x^2 - 48x + 35x - 56$$

$$30x^2 - 13x - 56$$

7. Solve the equation with factoring by grouping.

$$10x^2 + 8x + 15x + 12 = 0$$

$$(2x + 3)(5x + 4) = 0$$

$$x = \frac{-3}{2} \quad x = \frac{-4}{5}$$

8. Solve the equation.

$$(7x - 4)(5x - 2) = 0$$

$$x = \frac{4}{7} \quad x = \frac{2}{5}$$